

Listing of Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application.

1. (Original) A dental implant, comprising:
a proximal end adapted to abut an abutment;
an interior bore extending distally from the proximal end;
a first anti-rotation cavity in the interior bore and comprising a first minor diameter; and
a second anti-rotation cavity in the interior bore and comprising a second minor diameter no greater than the first minor diameter.
2. (Original) The implant of claim 1, wherein the first anti-rotation cavity is adapted to mate with a driving tool.
3. (Original) The implant of claim 2, wherein the second anti-rotation cavity defines a polygonal shape comprising a plurality of obtuse angles.
4. (Original) The implant of claim 3, wherein the polygonal shape of the second anti-rotation cavity comprises at least six angles, including the plurality of obtuse angles.
5. (Original) The implant of claim 3, wherein the first anti-rotation cavity defines a polygonal shape.
6. (Original) The implant of claim 4, wherein the polygonal shape is a hexagon.
7. (Original) The implant of claim 5, wherein the first minor diameter is greater than the second minor diameter.
8. (Original) The implant of claim 1, further including a first axial retention section in the interior bore distal of the second anti-rotation cavity, the first axial retention section having a predetermined configuration adapted to couple with a device inserted into the interior bore.
9. (Original) The implant of claim 8, wherein the first axial retention section comprises a recess adapted to engage a resilient lip of a device inserted into the interior bore.
10. (Original) The implant of claim 9, comprising a second axial retention section in the interior bore distal of the first axial retention section, wherein the second axial retention section

comprises a threaded section comprising a major diameter not greater than the second minor diameter of the second anti-rotation cavity.

11. (Original) The implant of claim 8, wherein the first axial retention section comprises a threaded section.

12. (Original) A dental implant system comprising the dental implant of claim 1 and further comprising:

a driving tool adapted to engage the first anti-rotation cavity; and
an abutment adapted to engage the second anti-rotation cavity.

13. (Original) A dental implant system comprising the dental implant of claim 1 and a driving tool adapted to engage at least one of the first anti-rotation cavity and the second anti-rotation cavity.

14. (Original) A dental implant, comprising:

a proximal end;
an interior bore extending distally from the proximal end;
a first anti-rotational feature in the interior bore; and
a second anti-rotational feature in the interior bore, wherein the second anti-rotation feature is positioned distal of the first anti-rotational feature to provide rotational resistance independent of the first anti-rotational feature.

15. (Original) The dental implant of claim 14, wherein the first anti-rotational feature comprises a first minor diameter, and the second anti-rotational feature comprises a second minor diameter smaller than the first minor diameter of the first anti-rotational feature.

16. (Original) The dental implant of claim 14, wherein the first anti-rotational feature defines a polygonal shape comprising a plurality of obtuse interior angles.

17. (Original) The dental implant of claim 16, wherein the plurality of obtuse interior angles of the polygonal shape of the first anti-rotational feature comprises at least six angles.

18. (Original) The dental implant of claim 16, wherein the second anti-rotational feature defines a polygonal shape.

19. (Original) The dental implant of claim 14, wherein the first anti-rotational feature defines a polygonal shape.

20. (Original) The dental implant of claim 19, wherein the second anti-rotational feature defines a polygonal shape comprising a plurality of obtuse interior angles.
21. (Original) The dental implant of claim 20, wherein the polygonal shape of the second anti-rotational feature comprises at least six angles, including the plurality of obtuse interior angles.
22. (Original) The dental implant of claim 14, wherein one of the first and second anti-rotational features is adapted to mate with an abutment and the other of the first and second anti-rotational features is adapted to mate with a driving tool.
23. (Original) The dental implant of claim 14, wherein one of the first and second anti-rotational features is adapted to couple with an abutment and to enable relative rotational adjustments to be made by a minimum rotational increment of 30°, whereby the abutment may be rotationally aligned relative to the implant before seating the abutment in the implant.
24. (Original) The dental implant of claim 14, wherein the first anti-rotational feature is adapted to allow a first minimum circumferential incremental adjustment, and the second anti-rotational feature is adapted to provide a second minimum circumferential incremental adjustment greater than the first minimum circumferential incremental adjustment.
25. (Original) The dental implant of claim 14, wherein the first anti-rotational feature and the second anti-rotational feature are different polygons.
26. (Original) The dental implant of claim 14, wherein at least one of the first and second anti-rotational features is symmetric about a longitudinal axis running through the interior bore.
27. (Original) The dental implant of claim 14, further including an axial-retentive feature for mating with a resilient feature of an abutment, the axial-retentive feature being distal of the second anti-rotational feature.
28. (Original) The dental implant of claim 27, further including a threaded section located distally of the axial-retentive feature.
29. (Original) A dental implant adapted to mate with an abutment, the implant comprising:
 - a table adapted to abut the abutment;
 - a first anti-rotational feature adjacent to the table; and

a second anti-rotational feature adjacent to the first anti-rotational feature and located further from the table than the first anti-rotational feature.

30. (Original) The dental implant of claim 29, wherein the first anti-rotational feature comprises a first minor diameter, and the second anti-rotational feature comprises a second minor diameter smaller than the first minor diameter of the first anti-rotational feature.

31. (Original) The dental implant of claim 29, wherein the first anti-rotational feature is axially aligned with the second anti-rotational feature.

32. (Original) The dental implant of claim 29, wherein at least one of the first anti-rotational feature and the second anti-rotational feature defines a polygonal shape comprising a plurality of obtuse angles.

33. (Original) The dental implant of claim 32, wherein the first anti-rotational feature defines the polygonal shape comprising the plurality of obtuse angles and the second anti-rotational feature defines a polygonal shape.

34. (Original) The dental implant of claim 32, wherein the second anti-rotational feature defines the polygonal shape comprising the plurality of obtuse angles and the first anti-rotational feature defines a polygonal shape.

35. (Original) The dental implant of claim 29, wherein one of the first and second anti-rotational features is adapted to engage the abutment and the other of the first and second anti-rotational features is adapted to engage a driving tool.

36. (Original) A dental implant system, comprising:

(a) an implant comprising:

a proximal end opening to a bore,

a first internal anti-rotation feature in the bore, and

a second internal anti-rotation feature in the bore distal of the first anti-rotational feature;

(b) a first abutment comprising a stem adapted to fit in the bore of the implant, wherein the stem comprises:

a non-locking portion adapted to be located in the first internal anti-rotation feature without rotationally-lockingly engaging the first internal anti-rotation feature, and

a locking portion distal of the non-locking portion and adapted to rotationally-lockingly engage the second anti-rotation feature; and

(c) a second abutment comprising a stem adapted to fit in the bore of the implant, wherein the stem comprises:

a locking portion adapted to rotationally-lockingly engage the first anti-rotation feature of the implant.

37. (Original) The system of claim 36, wherein the stem of the second abutment comprises a non-locking portion distal of the locking portion and adapted to be positioned in the second anti-rotation feature without rotationally-lockingly engaging the second anti-rotation feature.

38. (Original) The system of claim 36, comprising a driving tool adapted to be selectively engaged with either the first feature or the second feature.

39. (Original) A dental implant system, comprising:

(a) an implant comprising:

an interior bore,

a first internal anti-rotation section, and

a second internal anti-rotation section; and

(b) an abutment comprising a stem adapted to fit in the bore and comprising:

a first section adapted to be positioned in the first internal anti-rotation section of the implant, and

a second section adapted to be positioned in the second internal anti-rotation section of the implant, wherein only one of either the first section of the stem or the second section of the stem rotationally-lockingly engages the implant when the abutment is seated.

40. (Original) The implant system of claim 39, wherein the first internal anti-rotation section comprises a first minimum diameter and the second internal anti-rotation section comprises a second minimum diameter less than the first minimum diameter.

41. (Original) The implant system of claim 40, wherein the first section of the stem comprises a first major diameter and the second section of the stem comprises a second major diameter less than the first major diameter.

42. (Original) The implant system of claim 41, wherein the first major diameter of the first section of the stem is not greater than the first minimum diameter of the first anti-rotation section of the implant.

43. (Original) The implant system of claim 41, wherein the second major diameter of the second section of the stem is not greater than the second minimum diameter of the second anti-rotation section of the implant.

44. (Original) The implant system of claim 39, comprising a driving tool adapted to rotationally-lockingly engage the first internal anti-rotation section of the implant, wherein the abutment is adapted to rotationally-lockingly engage the second internal anti-rotation section of the implant.

45. (Original) A dental implant system, comprising:

(a) an implant comprising:

an interior bore,

a first internal anti-rotation section, and

a second internal anti-rotation section distal of the first internal anti-rotation section; and

(b) an abutment comprising a stem adapted to fit in the bore and comprising:

a first section adapted to be positioned in the first internal anti-rotation section of the implant, and

a second section distinct from the first section of the abutment adapted to be positioned in the second internal anti-rotation section of the implant, wherein one or more of the first and second sections of the stem rotationally-lockingly engages the implant when the abutment is seated.

46. (Original) A dental implant for installation in bone, comprising:

an exterior surface for contacting said bone;

an upper portion for engaging an abutment adapted for receiving a prosthesis; and

an internal bore having two distinct internal anti-rotational features, one of said two internal anti-rotational features for engaging a driving tool during said installation and the other of said two internal anti-rotational features for engaging said abutment for resisting rotation of said abutment relative to said implant.

47. (Original) The dental implant of claim 46, wherein said two internal anti-rotational features are polygons.

48. (Original) The dental implant of claim 46, wherein one of said two internal anti-rotational features is at least partially located within said upper portion.

49. (Original) The dental implant of claim 46, wherein said upper portion includes a surface located outside of said internal bore for engaging said abutment.

50. (Original) A dental implant for installation in bone, comprising:
an exterior surface for contacting said bone; and
an internal bore having two distinct internal anti-rotational features, one of said two internal anti-rotational features for engaging a first abutment to resist rotation of said first abutment relative to said implant, the other of said two internal anti-rotational features for engaging a second abutment for resisting rotation of said second abutment relative to said implant, said first abutment being a type of abutment that is different from said second abutment.

51. (Original) A dental method, comprising:
applying a torque to a first internal anti-rotation feature of an implant to insert the implant deeper into a bone; and
subsequent to applying the torque to the first internal anti-rotation feature, engaging an abutment with a second internal anti-rotation feature of the implant.

52. (Original) A dental process, comprising:
selecting a suitable abutment from a plurality of abutments; and
coupling the suitable abutment to one of two internal anti-rotation features of an implant that is installed within a patient's mouth.

53. (Original) The process of claim 52, comprising selecting the suitable abutment based at least in part upon prevailing conditions in the patient's mouth.

54. (Original) The process of claim 53, comprising inserting the implant into the patient's mouth prior to selecting the suitable abutment.

55. (Original) A dental process, comprising:

installing an implant comprising two internal anti-rotation features into a patient's mouth; subsequent to installing the implant in the patient's mouth, selecting a suitable abutment from a plurality of abutments; and

coupling the suitable abutment to one of two internal anti-rotation features of the implant in the patient's mouth.

56. (Original) The dental process of claim 55, wherein installing the implant comprises coupling a driving tool to the other of the two internal anti-rotation features, wherein the suitable abutment is subsequently coupled to the one internal anti-rotation feature.

57. (Original) The dental process of claim 55, comprising removing a driving tool and implant from a package, wherein the driving tool is coupled to another of the two internal anti-rotational features, and where the driving tool comprises a mount and the suitable abutment is subsequently coupled to the one internal anti-rotation feature.

58. (Withdrawn) A dental implant system, comprising:

an implant comprising:

a bore comprising an anti-rotation structure, and

a recess in the bore; and

an implant driving tool comprising:

a gripping end, and

a working end opposing the gripping end, wherein the working end comprises:

a predetermined shape adapted to rotationally lock with the implant bore, and

a retention structure distal of the predetermined shape and adapted to couple with the recess in the bore of the implant.

59. (Withdrawn) The dental implant system of claim 58, wherein the working end extends distally beyond the retention structure.

60. (Withdrawn) The dental implant system of claim 58, wherein the predetermined shape comprises a first major diameter adapted to fit within a first cavity of the implant; and the working end comprises a second major diameter distal of the retention structure and adapted to fit within a second cavity of the implant, wherein the second major diameter is smaller than the first major diameter.

61. (Withdrawn) The dental implant system of claim 58, comprising a stop proximal of the predetermined shape and positioned to abut a table of the implant when the driving tool is properly mated to the implant.

62. (Withdrawn) The dental implant system of claim 58, comprising visual alignment indicia proximal of the predetermined shape to provide an indication of rotational alignment of the implant after the tool is mated to the implant.

63. (Withdrawn) The dental implant system of claim 58, wherein the working end comprises a mount.

64. (Withdrawn) An implant driving tool, comprising:
a predetermined shape adapted to rotationally lock with an implant; and
visual alignment indicia proximal of the predetermined shape to provide an indication of rotational alignment of the implant after the tool is mated to the implant.

65. (Withdrawn) The tool of claim 64, wherein the tool is a mount.

66. (Withdrawn) The tool of claim 65, wherein the mount is an impression coping.

67. (Original) An implant system, comprising:
an implant comprising a first anti-rotational feature and a second anti-rotational feature;
a mount adapted to couple to the first anti-rotational feature to transfer torque to the implant to install the implant in a patient; and
an abutment adapted to couple to the second anti-rotational feature.

68. (Original) The system of claim 67, wherein the implant comprises a bore and the first anti-rotational feature comprises a first anti-rotational cavity in the bore and the second anti-rotational feature comprises a second anti-rotational cavity in the bore distinct from the first anti-rotational cavity.

69. (Original) The system of claim 67, wherein the mount is prepackaged attached to the implant, whereby the practitioner is provided with the mount already coupled to the implant.

70. (Original) The system of claim 67, wherein the mount is an impression coping.